IN THE SPECIFICATION:

Paragraph beginning at line 3 of page 1 has been amended as follows:

The present invention relates to a method for manufacturing split probes used as probes and nano-forceps ~~used~~ in scanning of semiconductors.

Paragraph beginning at line 27 of page 2 has been amended as follows:

In order to resolve the aforementioned problems, the ~~current application sets out to provide~~ present invention provides a simple method for manufacturing a more finely detailed split probe with less damage being incurred.

Paragraph beginning at line 3 of page 4 has been amended as follows:

FIG. 1 is a ~~view showing~~ SIM image of a probe tip that is formed when a focused and scanned ion beam current of 1pA is irradiated only on the very tip of the cantilever with the whole of a cantilever inclined at an angle of sixty degrees to the longitudinal direction taking the horizontal as 0 degrees, i.e., the irradiating direction of the focused ion beam is inclined sixty degrees relative to the surface of the cantilever on which the probe is formed. Secondary charged

particles emitted at the time of irradiation with the ion beam are detected, and an SIM image of the probe tip is obtained when a secondary particle signal intensity is displayed on a CRT in synchronism with the scanning signal. A SIM image for the probe tip is shown in FIG. 1.

Next, after processing position deciding is carried out from the SIM image of FIG. 1, processing for a channel or channel section is carried out using the same focused ion beam current as for the irradiation and scanning in FIG. 1 in order to divide or split the probe tip into two. The channel 1 is shown in FIG. 2. Processing is not carried out through 180 degrees to the opposite side of the probe tip because the ion beam current is low. Because of this, the inclination of the entire cantilever is left as is, and a channel or channel section 2 is processed using the same method as for channel 1 at the opposite section of the probe after rotation through 180 degrees on an axis vertical to the microcantilever, so that the channel 1 and the channel 2 are connected together. The channels 1 and 2 extend radially from the periphery of the probe tip from opposite locations that are 180° apart and intersect and connect with one another to form a channel that splits the probe tip into two spaced-apart probe tip parts. In fact, since the microcantilever is disposed on the sample stage, the sample stage is rotated 180 degrees so as to rotate the microcantilever after carrying out processing for the

first channel, and with the direction maintained the probe tip is positioned under the focused ion beam and scanned and grooved by the focused ion beam to form channel 2. When forming channel 2, the sample state is rotated 180 degrees in the above process. But it is available to scan the focused ion beam at the tip center of the ~~prove~~ probe after positioning it under the focused ion beam after returning the sample stage to the horizontal position.

After carrying out processing for the first and second channels, processing is carried out to make a channel connecting these channels. This is shown in FIG. 3. In FIG. 3, numeral 10 is a wiring pattern formed on the cantilever substrate surface, and numeral 11 is a conductive film formed on the cantilever substrate surface and probe connecting with the wiring pattern 10. In FIG. 3, after the whole of the cantilever 6 is returned to a horizontal or non-tilted state, the channel 3 is formed radially at two locations from the point of intersection of the channels 1 and 2. The conductive film 11 is divided by the channel 3. The processing of the channel 3 is carried out using a focused ion beam current of 50pA. After processing channel 1 and channel 2, by processing the channel 3, the probe tip is electrically separated or divided into two ~~items~~ parts and conductivity is lost, so as to ~~finally give~~ form a ~~two electrode~~ two-electrode structure. FIG. 4 shows processing channels 1, 2 and 3 formed in a probe

of a microcantilever using the method of the present invention as an SIM image. Channels of processing widths of 10 to 500nm can be formed at the central position of the probe tip.

Paragraph beginning at line 23 of page 5 has been amended as follows:

A focused ion beam as one kind of particle beam is used in processing of the channel but finer processing is possible if other particle beams such as an electron beam, etc. is used. In this embodiment, an example of processing a probe on a microcantilever is shown, but this method may also be similarly applied to processing of a probe arranged on, for example, a membrane. The present invention is also effective for a cone, triangular pyramid, or polygonal pyramid having a pinnacle with a radius of curvature of 100nm or less.